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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/717,136	11/22/2000	Thomas L. Mydlack	174-927	2863
20582	7590	10/14/2003	EXAMINER	
PENNIE & EDMONDS LLP 1667 K STREET NW SUITE 1000 WASHINGTON, DC 20006			LEE, EDMUND H	
			ART UNIT	PAPER NUMBER
			1732	
DATE MAILED: 10/14/2003				

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/717,136	MYDLACK ET AL.
	Examiner	Art Unit
	EDMUND H. LEE	1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
 THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-36 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-36 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All
 - b) Some *
 - c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____.
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3.4</u> .	6) <input type="checkbox"/> Other: _____.

DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,2,3,4, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Hwang (USPN 5952415). Hwang teaches the claimed process as evident at col 1, Ins 62-65; col 3,Ins 20-44; col 4, Ins 56-57; and col 5, In 46-col 6, In 3.
3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hwang (USPN 5952415). The above teachings of Hwang are incorporated hereinafter. Hwang does not teach cooling at the claimed temperatures; cooling for the claimed duration; achieving the specific amount of volumetric reduction; casting the cover layer; and reaction injection molding the cover layer. In regard to cooling at the claimed temperatures, cooling temperature is well-known in the molding art as an important molding parameter and the desired temperature would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the time the invention was made. Further, the claimed temperatures are generally well-

known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to cool the golf ball subassembly of Hwang at the claimed cooling temperatures in order to achieve shrinkage. In regard to cooling for the claimed duration, cooling duration is well-known in the molding art as an important molding parameter and the desired duration would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the time the invention was made. Further, the claimed durations are generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to cool the golf ball subassembly of Hwang for the claimed duration in order to ensure the desired amount of shrinkage. In regard to achieving the specific amount of volumetric reduction, volume reduction is well-known in the molding art as an important molding parameter and the desired reduction amount would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the time the invention was made. Further, the claimed volume reduction is generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to reduce the golf ball subassembly of Hwang by the claimed amount in order to produce a subassembly having a desired play characteristic. In regard to casting the cover layer, such is well-known in the golf ball molding art. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to cast the cover layer of Hwang in order to produce a thin cover layer. In regard to reaction injection molding the cover layer, such is well-known in the golf ball molding art. Thus, it would have been obvious

to one of ordinary skill in the art at the time the invention was made to reaction injection mold the cover layer of Hwang in order to produce a durable, high performance cover layer.

5. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hwang (USPN 5958415) as applied to claim 1 above, and further in view of Brown et al (USPN 5006297). The above teachings of Hwang are incorporated hereinafter. Hwang does not teach applying the cover by steps of claim 14; curing the cover material to form the cover layer after the step of mating the second mold half; and the steps of curing of claim 16. Brown et al teach a method of casting a golf ball cover (figs 1-2); providing a first mold half and second old half, the first and second mold halves have cavities therein (figs 1-2); heating the mold halves to a predetermined temperature (col 5, Ins 22-26; col 6, Ins 56-58; col 7, Ins 1-7 and 20-25; figs 1-2); adding a cover material to the first mold half cavity (col 5, Ins 22-26; col 6, Ins 56-58; col 7, Ins 1-7 and 20-25; figs 1-2); allowing the cover material to gel (col 5, Ins 22-26; col 6, Ins 56-58; col 7, Ins 1-7 and 20-25; figs 1-2); inserting a golf ball subassembly into the first mold half cavity (col 5, Ins 22-26; col 6, Ins 56-58; col 7, Ins 1-7 and 20-25; figs 1-2); adding the cover material to the second mold half cavity (col 5, Ins 22-26; col 6, Ins 56-58; col 7, Ins 1-7 and 20-25; figs 1-2); mating the second mold half with the first mold half so that the cover material and the golf ball subassembly are contained within the cavities in the mold halves (col 5, Ins 22-26; col 6, Ins 56-58; col 7, Ins 1-7 and 20-25; figs 1-2); and curing the cover material to form the cover layer after the step of mating the second mold half (col 5, Ins 22-26; col 6, Ins 56-58; col 7, Ins 1-7 and 20-25; figs 1-2). Brown et al also teach

heating the mold halves to cure the cover material (col 5, Ins 22-26; col 6, Ins 56-58; col 7, Ins 1-7 and 20-25; figs 1-2). This step of heating the mold halves constitutes the claimed steps of maintaining the mold halves at a first temperature for a first predetermined time, heating the mold halves to a second temperature greater the first predetermined temperature for a second predetermined time, and maintaining the mold halves at a third temperature for a third predetermined time. As the temperature of the mold halves increases from being heated, it is inherent that the temperature of the mold halves are maintained, even for the slightest amount of time, at numerous temperatures. Hwang and Brown et al are combinable because they are analogous with respect to molding golf balls. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the above teachings of Brown et al into the process of Hwang in order to efficiently mold a high quality golf ball cover.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 17, 18, 19, 22, 23 and 26 rejected under 35 U.S.C. 102(b) as being anticipated by Brown et al (USPN 5006297). Brown et al teach the claimed process as evident at col 5, Ins 22-26; col 6, Ins 56-58; col 7, Ins 1-7 and 20-25; and figs 1-2. The step of heating the mold halves of Brown et al constitutes the claimed steps of maintaining the mold halves at a first temperature for a first predetermined time, heating

the mold halves to a second temperature greater the first predetermined temperature for a second predetermined time, and maintaining the mold halves at a third temperature for a third predetermined time. As the temperature of the mold halves increases from being heated, it is inherent that the temperature of the mold halves are maintained, even for the slightest amount of time, at numerous temperatures.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 20, 21, 24, 25 and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al (USPN 5006297). The above teachings of Brown et al are incorporated hereinafter. Brown et al does not teach the first predetermined time of claim 20; the claimed first temperature and first predetermined time of claim 21; the second predetermined time of claim 24; the claimed second temperature and second predetermined time of claim 25; the third temperature of claim 27; the third predetermined time of claim 28; the claimed third temperature and third predetermined time of claim 29; and the second predetermined time being less than the first predetermined time and the third predetermined time. In regard to the first predetermined time of claim 20, heating duration is well-known in the molding art as an important molding parameter and the desired duration would have been obviously and readily determined through routine experimentation by one having ordinary skill in the

art at the time the invention was made. Further, the claimed duration is generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to set the first predetermined time of Brown et al for the claimed duration in order to ensure a sufficient amount of curing. In regard to the claimed first temperature and first predetermined time of claim 21, heating parameters such as temperature and duration are well-known in the molding art as important molding parameters and the desired temperature and duration would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the time the invention was made. Further, the claimed temperature and duration are generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to set the first temperature and first predetermined time for the claimed values in order to ensure a sufficient amount of curing. In regard to the second predetermined time of claim 24, heating duration is well-known in the molding art as an important molding parameter and the desired duration would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the time the invention was made. Further, the claimed duration is generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to set the second predetermined time of Brown et al for the claimed duration in order to ensure a sufficient amount of curing. In regard to the claimed second temperature and second predetermined time of claim 25, heating parameters such as temperature and duration are well-known in the molding art as

important molding parameters and the desired temperature and duration would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the time the invention was made. Further, the claimed temperature and duration are generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to set the first temperature and first predetermined time for the claimed values in order to ensure a sufficient amount of curing. In regard to the third temperature of claim 27, heating temperature is well-known in the molding art as an important molding parameter and the desired duration would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the time the invention was made. Further, the claimed temperature is generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to set the third temperature of Brown et al at the claimed temperature in order to ensure a sufficient amount of curing. In regard to the third predetermined time of claim 28, heating duration is well-known in the molding art as an important molding parameter and the desired duration would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the time the invention was made. Further, the claimed duration is generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to set the third predetermined time of Brown et al for the claimed duration in order to ensure a sufficient amount of curing. In regard to the claimed third temperature and third predetermined time of claim 29, heating parameters

such as temperature and duration are well-known in the molding art as important molding parameters and the desired temperature and duration would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the time the invention was made. Further, the claimed temperature and duration are generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to set the third temperature and third predetermined time for the claimed values in order to ensure a sufficient amount of curing. In regard to the second predetermined time being less than the first predetermined time and the third predetermined time, heating duration is well-known in the molding art as an important molding parameter and the desired duration would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the time the invention was made. Further, the claimed duration is generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to set the second predetermined time of Brown et al to be less than the first and the third predetermined times of Brown et al in order to ensure proper curing of the golf ball cover.

10. Claims 31-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hwang (USPN 5952415) in view of Brown et al (USPN 5006297). In regard to claim 31, Hwang teaches the basic claimed process including cooling a golf ball subassembly such that the golf ball subassembly undergoes a volumetric reduction (col 1, Ins 62-65; col 3,Ins 20-44; col 4, Ins 56-57; and col 5, In 46-col 6, In 3); applying a cover layer in

mold halves over the volumetrically reduced golf ball subassembly to form a covered golf ball (col 1, Ins 62-65; col 3, Ins 20-44; col 4, Ins 56-57; and col 5, In 46-col 6, In 3); and curing the cover layer of the covered golf ball (col 1, Ins 62-65; col 3, Ins 20-44; col 4, Ins 56-57; and col 5, In 46-col 6, In 3). However, Hwang does not teach the claimed steps of curing the cover layer. Brown et al teach a method of casting a golf ball cover (figs 1-2); providing a first mold half and second old half, the first and second mold halves have cavities therein (figs 1-2); heating the mold halves to a predetermined temperature (col 5, Ins 22-26; col 6, Ins 56-58; col 7, Ins 1-7 and 20-25; figs 1-2); adding a cover material to the first mold half cavity (col 5, Ins 22-26; col 6, Ins 56-58; col 7, Ins 1-7 and 20-25; figs 1-2); allowing the cover material to gel (col 5, Ins 22-26; col 6, Ins 56-58; col 7, Ins 1-7 and 20-25; figs 1-2); inserting a golf ball subassembly into the first mold half cavity (col 5, Ins 22-26; col 6, Ins 56-58; col 7, Ins 1-7 and 20-25; figs 1-2); adding the cover material to the second mold half cavity (col 5, Ins 22-26; col 6, Ins 56-58; col 7, Ins 1-7 and 20-25; figs 1-2); mating the second mold half with the first mold half so that the cover material and the golf ball subassembly are contained within the cavities in the mold halves (col 5, Ins 22-26; col 6, Ins 56-58; col 7, Ins 1-7 and 20-25; figs 1-2); and curing the cover material to form the cover layer after the step of mating the second mold half (col 5, Ins 22-26; col 6, Ins 56-58; col 7, Ins 1-7 and 20-25; figs 1-2). Brown et al also teach heating the mold halves to cure the cover material (col 5, Ins 22-26; col 6, Ins 56-58; col 7, Ins 1-7 and 20-25; figs 1-2). This step of heating the mold halves constitutes the claimed steps of maintaining the mold halves at a first temperature for a first predetermined time, heating the mold halves to a second

temperature greater the first predetermined temperature for a second predetermined time, and maintaining the mold halves at a third temperature for a third predetermined time. As the temperature of the mold halves increases from being heated, it is inherent that the temperature of the mold halves are maintained, even for the slightest amount of time, at numerous temperatures. Hwang and Brown et al are combinable because they are analogous with respect to molding golf balls. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the above teachings of Brown et al to mold the cover of Hwang in the process of Hwang in order to efficiently mold a high quality golf ball cover. In regard to claims 32-36, Hwang does not teach placing the mold halves in a first insulating chamber; placing the mold halves in a curing oven; placing the mold halves in a second insulating chamber; cooling the mold halves to a forth temperature lower than the third temperature; and cooling at the claimed fourth temperature. In regard to placing the mold halves in a first insulating chamber, such is well-known in molding in order to maintain a temperature. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to place the mold halves of Hwang (modified) into a first insulating chamber in order to maintain the mold halves at the first temperature. In regard to placing the mold halves in a curing oven, it is well-known in the molding art to use a curing oven to cure a material. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the mold halves of Hwang (modified) into a curing oven in order to efficiently heat the mold halves of Hwang (modified). In regard to placing the mold halves in a second insulating chamber, such is

well-known in molding in order to maintain a temperature. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to place the mold halves of Hwang (modified) into a second insulating chamber in order to maintain the mold halves at the second temperature. In regard to cooling the mold halves to a fourth temperature lower than the third temperature, Brown et al teach cooling the mold halves (col 5, Ins 23-29)--as a note, this constitutes cooling the mold halves to a fourth temperature lower than the third temperature. Hwang and Brown et al are combinable because they are analogous with respect to molding golf balls. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the cooling step of Brown et al, i.e., cooling the mold halves to a fourth temperature lower than the third temperature, in the process of Hwang in order to efficiently mold a high quality golf ball cover. In regard to cooling at the claimed fourth temperature, cooling temperature is well-known in the molding art as an important molding parameter and the desired temperature would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the time the invention was made. Further, the claimed temperature is generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to cool the cover of Hwang at the claimed fourth temperature in order to ensure a sufficient amount of curing.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nesbitt (USPN 3671477) teaches shrinking a golf ball subassembly. Gendreau et al (USPN 4692497) teach forming a golf ball by curing the

molding material in a stepwise manner. Yamada (USPN 4570937) teaches forming a golf ball by curing a core in a stepwise manner.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDMUND H. LEE whose telephone number is 703.305.4019. The examiner can normally be reached on MONDAY-THURSDAY FROM 9AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on 703.305.5493. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.0661.


EDMUND H. LEE
Primary Examiner
Art Unit 1732
9/30/09

EHL